

Survey Shows Paging Growth and Predicts Stable Revenue

By Robert G. Wyser

Paging growth in the 1990s has been accompanied by declines in revenues per pager. A new survey shows things are changing.

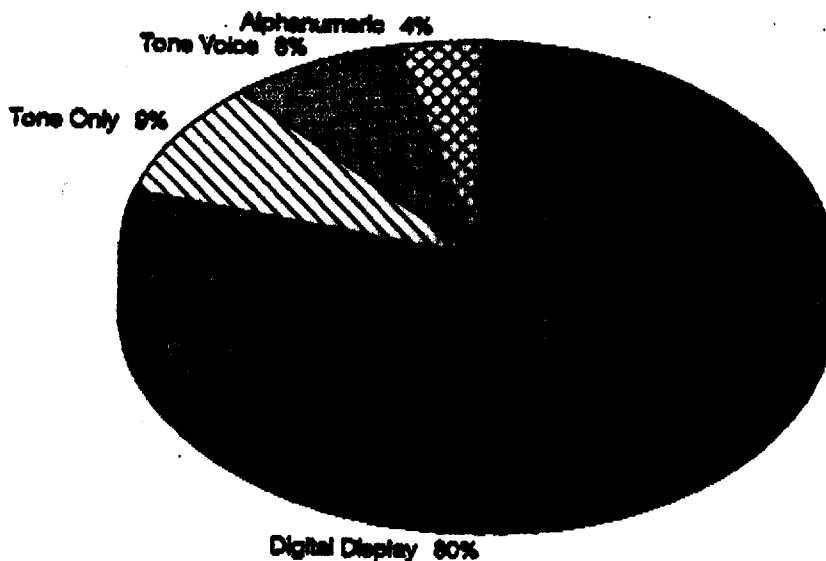


Figure 1. Pagers in Service by Type, 1991 (Percent of Pagers in Service)
Source: EMCI, Inc., based on the EMCI paging survey, January 1992.

The U.S. paging industry has been characterized in recent years by surprisingly strong growth, intense competition in major metropolitan areas and increasing demand for supplementary service options, such as regional paging and voice mail. These factors have been accompanied by declining revenues per pager. EMCI (Economic and Management Consultants International, Inc.) projects that this pager revenue trend will change soon, and continued growth will be accompanied by more stable revenue figures per pager.

Last year was a record growth year for the number of pagers in service—1.9 million pagers were added to the installed base in 1991, bringing the total to 11.8 million. In addition, 1991 continued 1990's strong growth trend despite the economic recession (1990's surge added 1.8 million pagers). EMCI believes growth will remain robust in the future, projecting more than 20 million pagers in service by 1996.

The data and information for this article were taken from EMCI's publication, *The State Of The U.S. Paging Industry: 1992*, which contains detailed analysis and projections for the paging industry. The report is based on an annual survey of paging carriers, public financial documents and industry interviews. All company-specific information in this article was obtained from public sources.

Revenue Per Pager

Revenue per pager is an important component of the industry's health. While total industry service revenues have grown by 10% to 15% annually in the past several years, the average revenue per pager has fallen each year.

Several factors contribute to the average revenue per pager. One is the mix of pager types making up the installed base of pagers. Another is the revenue per pager of each of the four types of pagers: digital display, tone only, tone-voice and alphanumeric. A third factor is value-added services, such as voice mail and regional paging service, which increase the revenue per pager. Yet

another factor is competition, which is greatest in large metropolitan markets. Finally, volume discounts and the split between rental and customer-owned pagers also affect the average revenue per pager.

Company Examples

The impact of various factors can be observed by examining the revenue per pager of individual companies that have different business and marketing strategies and operate in different environments.

Paging Network, Inc. (PageNet), the largest paging company in the United States, aims to be the low-cost, high-quality operator in its markets and to compete significantly on price. The company focuses on large metropolitan markets with populations of at least two million people. These are markets where price competition is substantial.

As reported in Paging Network's Securities and Exchange Form S-1, digital display and tone-only pagers made up approximately 99% of PageNet's pagers in service in June 1991, compared to the industry average of 89% (in December 1991). Digital display and tone-only pagers typically generate the lowest service revenues per pager of the four types of pagers.

Approximately 4% of PageNet's pagers use a voice mail service, compared to a 10% industry average. PageNet's focus on efficiency and price, its location in highly competitive markets, and its mix of pagers and services are reflected in its revenues per pager. In 1990, PageNet's average monthly revenue per pager was \$13.

Dial Page attempts to position itself as the premium provider of high-quality paging services, competing on transmission quality, reliability, customer service, coverage area and price. Most of Dial Page's markets are in small to medium sized metropolitan areas. As reported in Dial Page's Securities and Exchange Form S-4, 11% and 13% respectively of Dial Page's pagers in service were high-cost alphanumeric and tone-voice pagers in September 1991, com-

Year	Revenue (Dollars Per Month)	Revenue Decline (Dollars Per Month)
1987	25.80	
1988	20.30	5.50
1989	18.20	2.10
1990	16.70	1.50
1991	15.40	1.30

pared with PageNet, which had less than 1% of pagers in service in each category.

More than 18% of Dial Page's pagers use regional service, compared to an industry average of 16%. Dial Page's goal of offering premium service is exhibited in its relatively high revenue per pager, \$24 per month in 1990.

SkyTel Corp., a subsidiary of Mobile Telecommunication Technologies Corp., is the leading nationwide paging service provider. In 1990, SkyTel's average monthly revenue per unit (including paging and voice-messaging units) was \$43 per month. Nationwide service generates significantly more revenue per pager than local service.

More and more radio common carriers are beginning to offer nationwide service to their customers, many as resellers for major nationwide paging providers. Carriers are initiating nationwide service in response to customer demand and as a way to increase revenues. PageNet began offering nationwide paging in 1990, and 20 PageNet markets receive nationwide service.

Twenty-nine percent of firms in EMCI's survey offered nationwide paging service in 1991 compared with 17% in 1992. Four percent of paging customers subscribe to nationwide paging.

Revenues by Type of Pager

Figure 1 shows the number of pagers in service by type of pager and indicates the dominance of digital display

pagers. Beginning in 1992-1993, alphanumeric pagers are expected to become the second most popular pager type and are expected to continue increasing their share of pagers in service.

Alphanumeric pagers generate the highest revenue per pager of the four pager types. Alphanumeric rental pager revenues have ranged from \$27 to \$29 per month per pager over the past several years. Digital display rental revenues per pager have fallen from \$25.80 per month in 1987 to \$15.40 per month in 1991. For 1992, EMCI projects average digital display rental revenue per pager of \$14.90 per month.

The increasing popularity of value-added services and alphanumeric paging has not generated sufficient additional revenues to offset declining digital display revenues. The average industry service revenue per pager, including all types of pagers, has declined from \$17.34 per month in 1988 to \$14.80 per month in 1991 (Figure 2). For 1992, EMCI projects an additional 2% drop to \$14.48 per pager per month.

Service Revenues

Strong growth in the number of pagers in service contributed to aggregate industry service revenue growth of 14% in 1991, despite a decline in average monthly revenue per pager of 6%, from \$15.69 per month to \$14.80 per month. Total service revenues reached the \$1.9 billion mark in 1991 (Figure 3). Digital display revenues contributed \$1.4 bil-



Figure 2—Average Monthly Paging Industry Service Revenue Per Subscriber, 1988-1992. Source: EMCI, Inc., based on EMCI paging surveys, December 1988, June 1989, December 1989, December 1990 and January 1992.

lion, tone-voice roughly \$200 million, and alphanumeric and tone-only approximately \$100 million each.

For 1992, total service revenues are projected to increase by \$300 million to \$2.2 billion. All of the increase will come from digital and alphanumeric

paging. Tone-only and tone-voice revenues are expected to remain flat.

EMCI believes that the average revenue per pager will stabilize over the next several years. Digital display service price declines have been moderating each year, indicating a floor price is being approached. Table 1 shows the declines in digital display monthly revenue per pager from 1988 to 1991.

Alphanumeric pagers, which generate the most revenue per pager, are the fastest growing pager type. Alphanumeric pagers' increasing share of the installed base will help stabilize overall revenues per pager. Increasing demand for nationwide paging, regional service, and enhanced services, such as voice mail, will also contribute to more stable revenue per pager.

Several paging companies have made proposals to the Federal Communications Commission to offer advanced paging and messaging ser-

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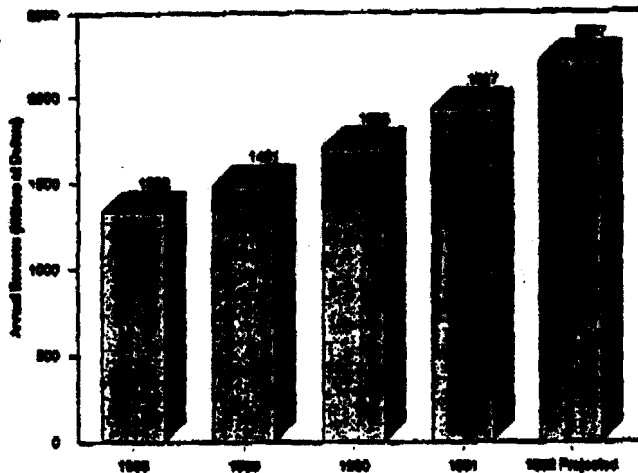


Figure 3—Annual Paging Industry Service Revenue, 1988-1992.

Source: EMCI, Inc., based on EMCI paging surveys, December 1988, June 1989, December 1989, December 1990 and January 1992.

vices. These proposals include new data services, ground-to-air paging, paging acknowledgment and open

These services, if implemented, could increase paging revenues significantly.

posed an advanced digital voice-paging service. In a market-potential study conducted by EMCI and included in PageNet's FCC filing, strong demand was indicated for PageNet's voice-paging service at a price ten dollars higher than traditional numeric digital service.

In conclusion, EMCI projects continued strong growth in the number of pagers in service and total service revenues for the paging industry. Digital display paging will maintain its dominance of the paging marketplace, with alphanumeric becoming the second most popular service. The average revenue per pager should stabilize in the near future at approximately \$14 to \$14.50 per pager per month. ■

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health construction sales transcripts.

device. It is also clear that the recent development of the consumer market is a key driver growth.

In our 1992 survey, pager content, we estimated that non-business users already represent approximately 21% of the user base (see Figure 1). A significant subset of these non-business subscribers are personal users (other subscribers in the non-business category are persons who run small businesses and acquire paging service under their own name).

EMCI has found that personal users make up a significantly high proportion of users in specific major metropolitan systems. This is particularly remarkable since there were insignificant numbers of personal users recently as two years ago. As we have seen, many other trend smaller markets tend to lag in the consumer market—personal pager use is currently much more common in large metropolitan areas. It would be nice to be

an industry promoter, pager design or distribution the factor driving the social users. Without the aid of carriers have begun retail strategies, and Motorola is notable in its development of consumer-oriented Bravo.

However, the reality is that either have not in consumer-oriented market only recently done so, the consumer market under way in many areas that Motorola color pager is mostly available and in use. It appears that the driven phenomenon is

individual boxes. Easy service activation is critical.

Place. The products need to be displayed in retail space with good cross-traffic opportunities along with other displayed products.

Negative Factors

While retail can be an important method of increasing consumer sales, it is unlikely that every paging company will be successful in this area. Retail distribution is complex and has many risk factors that must be considered. A few of these factors are identified below:

Higher churn. Customers who purchase through retail outlets may not have been well educated about the service. Because they did not purchase directly from the carrier, they feel little loyalty to the service provider. Some carriers have experienced higher churn through retail distribution.

Ability to negotiate retail space. It is difficult to compete for space with major retailers. Only the largest companies in the area are likely to have sufficient market power to succeed with the large retailers.

No control over customer in the sales process. Sales persons may know little about such issues as coverage areas or in-building coverage. Misinformed customers may reject the sale or be more likely to churn.

"Retail distribution is complex and has many risk factors that must be considered."

Managing inventory. Retail channels may require tight delivery schedules on specific pager types. The ability to meet delivery schedules may require new inventory management.

Difficulty in controlling cost of sale in retail. Due to advertising contributions and write downs of slow-moving inventory, it is often difficult to accurately predict and control the cost of sales through retail.

Administrative and marketing support. Negotiating with and managing retail distribution often requires new administrative and marketing support functions by the carrier.

Other Distribution Strategies

While retail distribution may reap important rewards for those able to

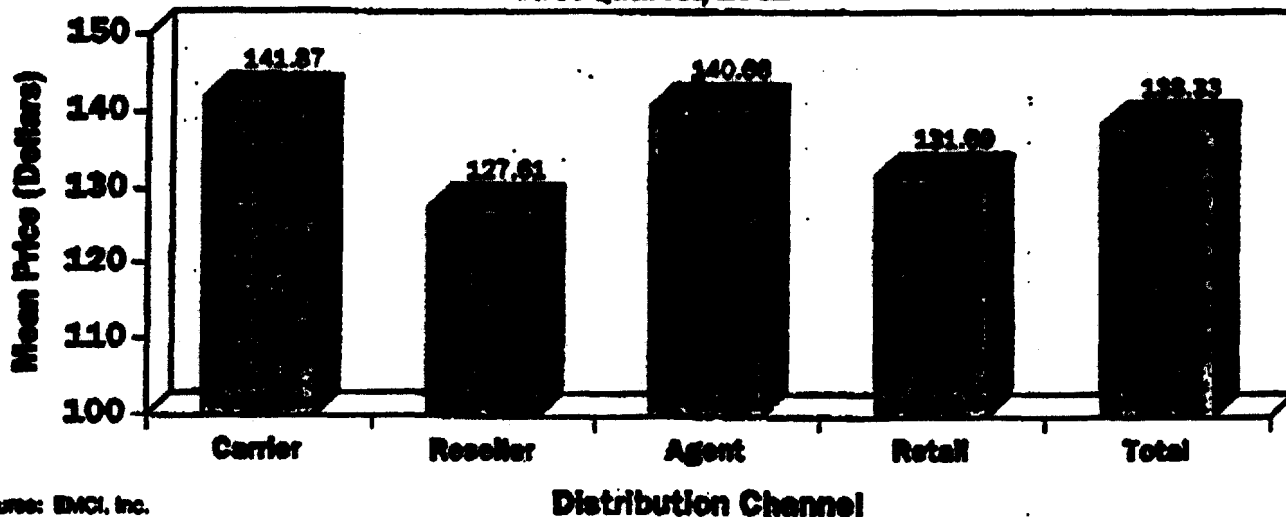
play the game, there are other consumer-oriented distribution solutions. Direct mail, through billing inserts, has recently become a more popular method of marketing mobile communications devices.

Some carriers have used low prices combined with non-traditional advertising media to attract the consumer market. In Washington, D.C., PageNet advertises in the *City Paper*, a free "lifestyle" newspaper oriented toward young professionals and college students.

The consumer market is clearly an immediate and critical growth area for the paging industry. It appears that a significant portion of this market segment is simply attracted by low prices. For some carriers, this will be enough. The truly successful carriers in the growing consumer market will develop tailored distribution strategies, often including a mix of retail outlets.

Andrew D. Roscoe is CEO of MTA/EMCI (Malarkey Taylor & Associates/Economic and Management Consultants International, Inc.), a telecommunications consulting firm, as well as president and CEO of EMCI, the mobile communications division of the company.

**Figure 2. Digital Display Pager Equipment Prices by Distribution Channel
- First Quarter, 1992**



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Growth Seen Ahead for Pagers

HFD March 30, 1992 p. 89
ISSN: 0162-9158

By James La Rossa Jr.

NEW YORK - Both pager manufacturers and carriers of pager services are keying on evolving American lifestyles to significantly expand the retail pager business over the next five years.

The telecommunications industry, which experts say still has many years of growth ahead of it, recognizes that retail stores can attract a wide variety of customers. But, now that retailers recognize the potential of pagers, the challenge is to help them evolve from business tools to consumer electronics products.

That might not be as easy as it sounds. Here's a case in point:

A photographer who works for this magazine has owned a pager for many years, paying a set fee for monthly service. Recently, he gave a colleague the name of his carrier to buy a pager. Later, the photographer discovered that his friend's new monthly service fee was significantly lower than his own. To make a long story short, the original customer had to threaten to go elsewhere to receive the same deal as a new customer.

The story illuminates but one dilemma that this insular industry must overcome as consumers - accustomed to easy straight-forwardness in buying electronics - turn to pagers to provide a host of personal services from minding their children to screening their cellular phone calls.

To get a handle on some of these issues, industry experts recently met here for a seminar called "Paging. For the Business of Life," sponsored by the Paging Services Council, a consumer information source that promotes the benefits of paging and related personal communications services, and Telocator, the Washington, D.C.-based association for paging.

The message everyone seems to be giving is that pagers are no longer the awkward devices of yesteryear seen clipped to the belts of doctors, plumbers and others on emergency calls.

Technological advances have transformed the pager from a basic alerting system to a sophisticated, personal message communicating tool. Pagers, say the council, can aid just about anyone who wants to lead a more productive life. (Some 14,000 persons awaiting organ transplants were provided pagers through a program called LifePage to ensure that they get the message when a suitable organ donor has been located.)

There are more than 11 million pagers in use in this country today, accounting for revenues of around \$2 billion per year, says William Bang, vice president and director of distribution for the paging division of Motorola, the pager market share leader. Bang predicts that 60 million pagers will be in use by the turn of the century.

"Paging not only increases your mobility, it also helps you organize and balance the demands of a tightly scheduled day," according to Tom Stroup, president of Telocator. Telocator stresses that if the industry plays its cards right, paging has many years of continued growth ahead of it.

According to Steve Spiro, global business manager for Motorola's Paging Division, "The 10 percent retail distribution that we do today will grow to 50 percent by 1995 ... this is the beginning of a retail landslide."

Retail distribution has a number of advantages, says Spiro, including "cheaper cost of distribution." He adds that retailers also "have a continual desire to expand."

Spiro believes retail pager sales in large part will be impulse sales. And carrier retail programs have made that kind of purchase "very easy because the consumer walks out of the store with a live pager."

"In five years, consumer pager sales will outstrip business sales," predicts J. Cliff Eason, president and CEO, Metromedia Paging, a Southwestern Bell company. "Lifestyles dictate it."

Where in the past, many pager companies lease the unit to customers, carriers today want to sell the beeper, not lease it, says James Flynn, senior director marketing and sales for Metromedia. "That locks the customer in and is more effective for us."

Flynn predicts that as the price of pagers fall, supermarkets will be a large distributor in the near future.

Like numerous industry insiders, Flynn believes that cellphones were a boon for his industry because a large percentage of cellphone users also carry pagers to screen calls.

Also, the publicity that cellular garnered has helped consumers learn about all kinds of telecommunications products, including pagers.

Says Michael Vernetti, senior vice president, Telocator, "A lot of people thought the beginning of cellular would be the end of paging. Just

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Motorola pagers call on consumers

Advertising Age February 22, 1993 p. 25
ISSN: 0001-8899

Ad campaign aimed at women

By Ira Teinowitz

Motorola in April breaks its first consumer campaign for pagers, targeting career women rather than business people.

Falling pager prices and changing job patterns influenced Motorola's Americas Paging Products Division to focus more heavily on consumers, said Julie K. Greene, senior advertising and promotions manager.

'Lifestyles are changing,' she said. 'With mom or dad on the run, there needs to be a way to reach them.'

An \$8 million print and cable TV campaign breaking April 25 targets what Motorola expects will be the biggest buyers of pagers: working moms. McCann-Erickson Worldwide, Atlanta, handles.

One print brochure being distributed to retailers features a father, mother and son with the headline 'They're why I bought a pager.' Another shows a woman saying, 'It sets me free.'

Pagers 'have never been at the consumer price point before,' Ms. Greene said.

Retail prices on pagers have dropped to as low as \$69.99, from an average of several hundred dollars three years ago, according to Telocator, an industry association. At the same time, the price of paging service has fallen to as little as \$6.95 a month in some markets, down from \$20.

Meanwhile, technology has extended pager use from local to national and international.

Motorola this spring will start selling pagers at mass merchandisers including Sears, Roebuck & Co., Service Merchandise and Kmart Corp. for the first time.

This month, Motorola began shipping the Free Spirit. It has a list price of \$169, holds 10 20-character messages and plays a musical tone to signal a message rather than beeping.

An upscale, \$300 pager only slightly thicker than a credit card is already on the market. Called the Confidant, the pager can hold eight 12-digit messages.

Consumers who buy the pagers pay about \$12 a month for service.

Pagers have experienced double-digit growth in recent years, Telocator said. There were 14 million in service at the end of last year, up 17.6% from 1991, the group reported.

'We are not yet seeing the general consumer coming in droves,' said association President Tom Stoup, 'but we are seeing the beginning of what is expected to be a large market penetration for the industry into consumer markets.'

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*Motorola

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Pager Firms Target Consumers

HFD February 1, 1993 p. 82

ISSN: 0162-9158

By Lurie Silberg

Pager manufacturers and carriers say they expect their consumer-targeted products to move swiftly onto and quickly off retailers' shelves this year, based on dealer reaction at Winter CES.

Greater acceptance and understanding among consumers and retailers of the once business-oriented product has contributed to growing inventory at all retail levels, from supermarkets to department stores to electronic specialty stores.

Vendors and carriers have adapted their product lines to address the growing interest in pagers, as evidenced by some new introductions at the electronics show last month.

Executives at Motorola Paging Products Division credit eroding price points, lower monthly service fees and carriers' efforts to promote the products with pagers' movement into retail.

While retail SALES of pagers accounted for 20 percent of the market in 1992, that number is expected to jump to 50 percent by the end of 1995, according to industry statistics.

Motorola has specifically targeted the first-time user with its new Free Spirit pager, an entry-level uniquely styled product that is activated through the touch of one button, said Rob Pollack, director of products for the company's paging division. The \$169 black pager will be available later this month.

'Our goal is to continue to educate the consumer,' he said.

American Paging Network, a service provider in Minneapolis, carries out nationwide retail paging program for its manufacturers. predominately

applications. Memory packs, which can also be purchased separately, are national paging packets and can be used throughout the country. A pack of 30 will cost \$8.99, the same as one month of service.

Monthly service for the pager is available, said Rose, who noted the product will sell for under \$100. Shipping in April, the pager will be available from bookstores to specialty stores.

MobileComm, a BellSouth company, began selling pagers at retail two years ago. The carrier attributes booming SALES to heightened consumer awareness and an expanded retail distribution network. The entire Personal Pager line, to which two new consumer products were added at CES, is sold through more than 10,000 stores, including Radio Shack, Wal-Mart, AT&T Phone Centers, and Lechmere.

'We have had a tremendous positive response from consumer electronics retailers around the U.S.,' said Mike Lurie, executive director of alternate channels for MobileComm, based in Jackson, Miss. 'We were overwhelmed by our holiday SALES numbers, activating thousands of pagers in a single seven-day period,' he said, noting the increased SALES demonstrate the wide acceptance of pagers outside the business community.

The company is concentrating on retail and has expanded its line to include Motorola's Free Spirit, called the 550 Free Spirit by MobileComm, and MobileComm Numeric Display model 6800, which is manufactured by Panasonic and offered in clear, smoke and black.

Gary Vescio, vice president of retail SALES for PageNet, said pagers will bring significant opportunities for retailers. He projected that about 11.6 million units would be sold in 1996.

PageNet, which sells the full line of Motorola products including the Free Spirit, privately showed a new consumer-pager from Samsung Electronics America Inc. at WCES. 'The pager has all the functionality of the Motorola Express at a lower price point,' Vescio said, adding the pager will ship in May at a suggested retail of \$89.99.

NEC of America Inc. is readying a new consumer pager that will be available in March or April for less than \$100. The consumer will be able to choose from color cases in five bright hues, said Charlie Speights, marketing manager for NEC's Mobile Radio Division. The product will be available at higher-end retail stores.

While alphanumeric pagers are not expected to make significant inroads at retail anytime soon, Metromedia's Richard Thompson, director of national SALES, said the NEC Courier, an alphanumeric product, was a big hit at WCES. 'We were swamped by retailers,' Thompson said, noting the Courier offers canned messages and full alphanumeric capabilities.

He attributed the new-found success of pagers' to their cost-effectiveness. 'Paging is the most cost-efficient means of communication as compared to cellular in terms of equipment and service costs,' he said.

Metromedia sells the NEC Relay at a promotional price of \$99; the Courier will be sold for under \$200.

Peter Kavanaugh, vice president of SALES for Uniden, said the company's Micro XL, available in three retail versions depending on geographic location, is sold now at Radio Shack, Kmart and AT&T Phone Centers. A trial run is being conducted at limited Wal-Mart stores, he said. 'Over the next six months all large electronics retailers will sign up with one particular carrier program; retailers will commit to the

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product and a vendor,' he said.

Uniden plans to launch two new retail pagers during the next 12 to 18 months, he said.

PacTel Paging last fall unveiled a family-oriented paging system called KidTrack, available now through retail outlets such as Kids 'R' Us.

Dallas-based PageMart has developed a series of retail display/merchandising packages that is used to drive home the message at the retail level.

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COMPANY:

Motorola
Smart Page
Mobile Communications
NEC America
Uniden

PRODUCT: *Paging Systems (3662167)

EVENT: *Market Information (60); Product Design & Development (33);
Marketing Procedures (24)

COUNTRY: *United States (1USA)

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